

REMARKS

Applicants' undersigned attorney thanks the Examiner for his comments. Applicants respectfully request reconsideration of this patent application, particularly in view of the above Amendment and the following remarks. Currently, Claims 1-39 are pending, with Claims 2-7, 9, 17-22, and 27-39 withdrawn from consideration.

Amendments to the Claims

Claims 1, 8, 10-16, and 23-26 have been examined, and Claims 1, 8, and 10-14 have been indicated as being allowed.

Applicants have amended Claim 15 to include the limitation of the material being elastic. Support for this limitation is provided throughout the specification, such as at page 2, line 19 – page 3, line 1, and page 4, lines 14-15, for example.

No new matter has been added by this Amendment. No additional fee is due for this Amendment because the number of independent claims remains unchanged and the total number of claims also remains unchanged.

Information Disclosure Statements

The Examiner has acknowledged receipt of the First and Second Information Disclosure Statements filed 15 March 2000 and 15 August 2001, respectively, and has provided Applicants with a copy of the corresponding Forms PTO-1449 with his initials next to each reference indicating consideration of the cited references.

Applicants filed a Third Information Disclosure Statement on 22 September 2003. Applicants respectfully request the Examiner's acknowledgment of consideration of the reference cited in the Third Information Disclosure Statement.

Election/Restrictions

Applicants previously elected Group II, Species C, in response to the Restriction Requirement mailed 09 July 2001. In the Restriction Requirement, the Examiner indicated that "It is noted that if claim 1 as originally filed is part of an elected group and determined to be patentable, rejoinder of claims 1-14 will be considered." The amendment to Claim 1 does not render the subject matter of Claim 1 exclusive to Group II. Thus, amended Claim 1 remains generic to Groups I and II. Consequently, Applicants respectfully request rejoinder of Claims 2-7 and 9 in view of the allowance of Claim 1, as provided in 37 CFR §1.141.

Claim Rejections - 35 U.S.C. §103

The rejection of Claims 15, 16, and 23-26 under 35 U.S.C. §103(a) as being unpatentable over Smithe et al. (U.S. Patent No. 5,480,085, hereinafter "Smithe") in view of Shirasu (U.S. Patent No. 4,635,511) is respectfully traversed.

Smithe fails to disclose or suggest a process for cutting an elastic material, as required in Applicants' Claims 15, 16, and 23-26. As explained at page 7, line 20 – page 8, line 2, of the present application, the magnitude of the feed roll speed changes depends on the tension of the elastic material and the material properties of the elastic material. Additionally, Applicants' Claim 16 requires maintaining the web tension at a minimum immediately preceding the feed roll.

In contrast, Smithe is directed to a method for cutting envelope blanks. Envelope blanks are typically constructed of non-elastic materials. Tension in elastic materials is much more variable than in non-elastic materials. Feed roll speed changes in Smithe are not dependent on the tension of the material or the material properties of the material. Instead, tension in Smithe is adjusted to prevent slack or excessive tension in the envelope web during the process. Thus, there is no suggestion or motivation to use the method of Smithe to cut elastic materials. Furthermore, there is no suggestion or motivation in Smithe to maintain the web tension at a minimum immediately preceding the feed roll, particularly since any slack in the web of non-elastic envelope material would be detrimental immediately preceding the feed roll.

The Examiner points out that Smithe further fails to disclose the steps of measuring an actual length of the piece of material and comparing the actual length to a target length. The Examiner suggests that the cutter control apparatus of Shirasu overcomes these deficiencies of Smithe.

Shirasu discloses a cutter control apparatus for controlling the position in which a workpiece is cut by a cutter. The cutter control apparatus has a correction device for automatically correcting the cutting position to make uniform the cut dimension of a piece cut by the cutter. In contrast to Shirasu, the present invention as recited in Applicants' Claims 15, 16, and 23-26 does not adjust the cutting position of the cutting device but instead adjusts the speed of the feed roll.

Shirasu fails to disclose or suggest a process for cutting a material into pieces having a predetermined target length in which the speed of a feed roll is adjusted in response to a difference between an actual measured length and the target length. In addition, Shirasu fails to disclose or suggest a process for cutting an elastic material, or any other type of tension-sensitive material, and therefore fails to disclose or suggest any reason to measure or adjust tension in a web during a cutting process.

Furthermore, Shirasu does not allow for correction operations to be carried out more frequently than once per production lot. In Shirasu, a memory circuit must first store a number of data sets (e.g. 200 data sets) of actual cut lengths, and then determine a central value of the distribution of actual cut dimensions before a corrector value can be calculated. The corrector value is based on a difference between the central value and a cut dimension setting. Furthermore, the detected deviation from the cut dimension setting must be an "excessive" amount in order to trigger any corrective action (Col. 3, lines 32-36). As indicated at Column 4, line 67 - Column 5, line 2, a correction operation is not carried out for each cutting operation, but, rather, a correction operation is carried out for each production lot in which the predetermined number of cutting operations is accomplished. In the process of Shirasu, if a cycle of mistakes occurs within the lot, the correction process may not catch the mistake because only a central value of the distribution is determined rather than comparing each piece within the lot.

In contrast, the process of the present invention is a continuously-controlling process that may use a PID control system to compare the cut length of each individual piece of material to a target cut length and make adjustments in the feed rate as necessary. Shirasu does not provide a way to correct the cut length of pieces of material within a lot but instead corrects subsequent lots based on length discrepancies determined by a single central value of the distribution of the preceding lot. Unlike Shirasu, the present invention measures each piece of material and can correct the cut length of subsequent pieces within the same lot.

To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. There is no motivation to modify either Smithe or Shirasu, alone or in combination, to achieve a process for cutting elastic materials. Both Smithe and Shirasu are directed to processes that involve non-elastic material, thus, absent impermissible hindsight, there is no suggestion or motivation to adjust either of these processes to account for tension in elastic materials and/or material properties of elastic materials, and there is no expectation of successfully achieving Applicants' claimed invention based on the teachings of these references.

For at least the reasons given above, Applicants respectfully submit that Smithe in view of Shirasu fails to disclose or suggest Applicants' claimed invention. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Allowable Subject Matter

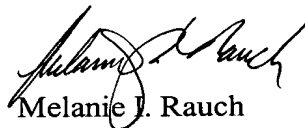
The Examiner has indicated that Claims 1, 8, and 10-14 are allowable. As indicated above, Applicants respectfully request rejoinder of Claims 2-7 and 9.

Conclusion

Applicants intend to be fully responsive to the outstanding Office Action. If the Examiner detects any issue which the Examiner believes Applicants have not addressed in this response, Applicants' undersigned attorney requests a telephone interview with the Examiner.

Applicants sincerely believe that this Patent Application is now in condition for allowance and, thus, respectfully request early allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Melanie J. Rauch", is written over the printed name.

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